SEQUENCE LISTING

<110> Brookhaven Science Associates, LLC.
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Zhang, Yian-Biao
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<120> Facilitating Protein Folding and Solubility by Use of Peptide Extensions

<130> BSA 01-22

<140> 10/037,234
<141> 2002-01-04

<160> 46

<170> PatentIn version 3.1

<210> 1
<211> 57
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic bacteriophage T7 gene 10B protein

<400> 1

Phe Gln Ser Gly Val Met Leu Gly Val Ala Ser Thr Val Ala Ala Ser
1 5 10 15

Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu Thr Pro Ala
20 25 30

Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg Lys Glu Ala
35 40 45

Glu Leu Ala Ala Ala Thr Ala Glu Gln
50 55

<210> 2
<211> 6
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<220>
<223> Description of Artificial Sequence: Synthetic motif

<400> 2

Ala Ala Asn Lys Ala Arg
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<210> 3
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic recognition motif

<400> 3

Ala Ala Asn Asp Glu Asn
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<210> 4
<211> 23
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 4

Cys Leu Glu Asp Pro Ala Ala Asn Lys Ala Arg Lys Glu Ala Glu Leu
1 5 10 15

Ala Ala Ala Thr Ala Glu Gln
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<210> 5
<211> 61
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<220>
<223> Description of Artificial Sequence: Synthetic T7C peptide

<400> 5

Leu Glu Asp Pro Phe Gln Ser Gly Val Met Leu Gly Val Ala Ser Thr
1 5 10 15

Val Ala Ala Ser Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr
20 25 30

Leu Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala
35 40 45

Arg Lys Glu Ala Glu Leu Ala Ala Ala Thr Ala Glu Gln

50 55 60

<210> 6
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7B peptide

<400> 6

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Ala Ala Ala Thr Ala Glu Gln
35 40

<210> 7
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7B1 peptide

<400> 7

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Thr Ala Glu Gln
35 40

<210> 8
<211> 44
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic T7B2 peptide

<400> 8

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Pro Pro Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Ala Ala Ala Thr Ala Glu Gln
35 40

<210> 9
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7B3 peptide

<400> 9

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Gly Gly Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Ala Ala Ala Thr Ala Glu Gln
35 40

<210> 10
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7B4 peptide

<400> 10

Leu Glu Asp Pro Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala
1 5 10 15

Asn Lys Ala Arg Lys Glu Ala Glu Leu Ala Ala Ala Thr Ala Glu Gln
20 25 30

<210> 11
<211> 44
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic T7B5 peptide

<400> 11

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Glu Ala Glu Thr Ala Glu Gln
35 40

<210> 12
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<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic T7B6 peptide

<400> 12

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Glu Thr Glu Ala Ala Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Glu Ala Glu Thr Ala Glu Gln
35 40

<210> 13
<211> 44
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic T7B7 peptide

<400> 13

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Glu
20 25 30

Glu Glu Ala Glu Leu Glu Ala Glu Thr Ala Glu Gln
35 40

<210> 14
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7B8 peptide

<400> 14

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Glu Thr Glu Ala Ala Asn Lys Ala Glu
20 25 30

Glu Glu Ala Glu Leu Glu Ala Glu Thr Ala Glu Gln
35 40

<210> 15
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7B9 peptide

<400> 15

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Ala Ala
35

<210> 16
<211> 40
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<223> Description of Artificial Sequence: Synthetic T7B10 peptide

<400> 16

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Ala Ala Ala
35 40

<210> 17
<211> 44
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic T7B11 peptide

<400> 17

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Ala Lys Ala Arg
20 25 30

Lys Glu Ala Glu Leu Ala Ala Ala Thr Ala Glu Gln
35 40

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<211> 41
<212> PRT
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<223> Description of Artificial Sequence: Synthetic T7B12 peptide

<400> 18

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Lys Ala Arg Lys Glu Ala
20 25 30

Glu Leu Ala Ala Ala Thr Ala Glu Gln
35 40

<210> 19
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7B13 peptide

<400> 19

Leu Glu Asp Pro Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu
1 5 10 15

Thr Pro Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Glu Ala
20 25 30

Glu Leu Ala Ala Ala Thr Ala Glu Gln
35 40

<210> 20
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7A peptide

<400> 20

Leu Glu Asp Pro Ala Ala Asn Lys Ala Arg Lys Glu Ala Glu Leu Ala
1 5 10 15

Ala Ala Thr Ala Glu Gln
20

<210> 21
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7A1 peptide

<400> 21

Leu Glu Asp Pro Glu Arg Asn Lys Glu Arg Lys Glu Ala Glu Leu Ala
1 5 10 15

Ala Ala Thr Ala Glu Gln
20

<210> 22
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7A2 peptide

<400> 22

Leu Glu Asp Pro Glu Arg Asn Lys Glu Arg Lys Glu Ala Glu Leu Glu
1 5 10 15

Ala Ala Thr Ala Glu Gln
20

<210> 23
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7A3 peptide

<400> 23

Leu Glu Asp Pro Glu Arg Asn Lys Glu Arg Lys Glu Ala Glu Leu Glu
1 5 10 15

Ala Glu Thr Ala Glu Gln
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<210> 24
<211> 22
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic T7A4 peptide

<400> 24

Leu Glu Asp Pro Ala Ala Asn Lys Ala Arg Lys Glu Ala Glu Leu Glu
1 5 10 15

Ala Ala Thr Ala Glu Gln
20

<210> 25
<211> 22

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T7A5 peptide

<400> 25

Leu Glu Asp Pro Ala Ala Asn Lys Ala Arg Lys Glu Ala Glu Leu Glu
1 5 10 15

Ala Glu Thr Ala Glu Gln
20

<210> 26
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic T3 peptide

<400> 26

Leu Glu Asp Pro Ala Val Trp Glu Ala Gly Lys Val Val Ala Lys Gly
1 5 10 15

Val Gly Thr Ala Asp Ile Thr Ala Thr Thr Ser Asn Gly Leu Ile Ala
20 25 30

Ser Cys Lys Val Ile Val Asn Ala Ala Thr Ser
35 40

<210> 27
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic N1 peptide

<400> 27

Met Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu Thr Pro Ala
1 5 10 15

Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg Lys Glu Ala
20 25 30

Glu Leu Ala Ala Ala Thr Ala Glu His

35 40

<210> 28
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic N2 peptide

<400> 28

Met Ala Glu Arg Ala Ser Val Thr Ser Thr Glu Glu Thr Leu Thr Pro
1 5 10 15

Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg Lys Glu
20 25 30

Ala Glu Leu Ala Ala Ala Thr Ala Glu His
35 40

<210> 29
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic N3 peptide

<400> 29

Met Ala Glu Glu Ala Lys Val Thr Ser Thr Glu Glu Thr Leu Thr Pro
1 5 10 15

Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg Lys Glu
20 25 30

Ala Glu Leu Ala Ala Ala Thr Ala Glu His
35 40

<210> 30
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic N4 peptide

<400> 30

Met Ala Glu Arg Ala Lys Arg Thr Ser Thr Glu Glu Thr Leu Thr Pro
1 5 10 15

Ala Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg Lys Glu
20 25 30

Ala Glu Leu Ala Ala Ala Thr Ala Glu His
35 40

<210> 31
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic N5 peptide

<400> 31

Met Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu Thr Pro Ala
1 5 10 15

Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Arg Lys Glu Ala
20 25 30

Glu Leu Glu Ala Glu Thr Ala Glu His
35 40

<210> 32
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic N6 peptide

<400> 32

Met Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu Thr Pro Ala
1 5 10 15

Gln Glu Ala Ala Glu Thr Glu Ala Ala Asn Lys Ala Arg Lys Glu Ala
20 25 30

Glu Leu Glu Ala Glu Thr Ala Glu His
35 40

<210> 33

<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic N7 peptide

<400> 33

Met Glu Glu Ala Ser Val Thr Ser Thr Glu Glu Thr Leu Thr Pro Ala
1 5 10 15

Gln Glu Ala Ala Arg Thr Arg Ala Ala Asn Lys Ala Glu Glu Glu Ala
20 25 30

Glu Leu Glu Ala Glu Thr Ala Glu His
35 40

<210> 34
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative linker sequence

<400> 34
ccatgggtat cactactcct gaagaga 27

<210> 35
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Encoded amino acids

<400> 35

Met Gly Ile Thr Thr Pro Glu Glu
1 5

<210> 36
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative linker sequence

<400> 36
taagccttca ggtgcgctcg ag 22

<210> 37
<211> 7
<212> PRT
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<220>
<223> Description of Artificial Sequence: Encoded amino acids

<400> 37

Lys Pro Ser Gly Ala Leu Glu
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<210> 38
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<212> DNA
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<220>
<223> Description of Artificial Sequence: Illustrative sequence

<400> 38
ctcgaggatc cg 12

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<220>
<223> Description of Artificial Sequence: Encoded amino acids

<400> 39

Leu Glu Asp Pro
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<400> 40
gctgagcaat aa 12

<210> 41
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<223> Description of Artificial Sequence: encoded amino acids

<400> 41

Ala Ala Asn Lys Ala Arg Lys Glu Ala Glu Leu Ala Ala Ala Thr
1 5 10 15

<210> 42
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Encoded amino acids

<400> 42

Leu Glu Asp Pro Ala Ala Asn Lys Ala Arg Lys Glu Ala Glu Leu Ala
1 5 10 15

Ala Ala Thr Ala Glu Gln
20

<210> 43
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative coding sequence

<400> 43
ccatggaaga g 11

<210> 44
<211> 15
<212> DNA
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<400> 44
accgctgagc atatg 15

<210> 45
<211> 5
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<220>
<223> Description of Artificial Sequence: Encoded amino acids

<400> 45

Thr Ala Glu His Met
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<210> 46
<211> 6
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<400> 46

His His His His His His
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